

Constant Exhibition of Endangered Freshwater Fishes at Gifu World Freshwater Aquarium

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1. Gifu World Freshwater Aquarium

In 2018, there are 60 public aquariums that are members of the JAZA, more than 36 million people visit a year. Therefore, it is effective to educate the existence of endangered freshwater fishes itself and the circumstance that led to extinction. It is now difficult to see endangered freshwater fishes in the wild, exhibiting the living them at the aquarium is a conservation activities that only the aquarium can do.

However, fishes kept in aquariums have been mostly acquired from wild or purchased from ornamental fish distributors. Endangered freshwater fishes are included in this. However, many of them have a life cycle of 1 to 2 years, which can lead to destruction of natural habitats if you rely on introduction from wild. Therefore, in order to be able to exhibit all the time, it is required to establish reproducible breeding techniques, and it takes much time and labor.

On the other hand, it is necessary to prioritize and efficiently breed with limited costs, because it keeps various organisms besides endangered freshwater fishes.

At Gifu World Freshwater Aquarium, 36 species of endangered freshwater fishes of Japan described in the Red List of the Ministry of the Environment and Gifu prefecture are made permanent exhibition type, and we have kept efforts to secure the captive numbers and maintain the exhibits.

Acheilognathus longipinnis and *Pseudorasbora pugnax* are positioned as priority species at Gifu World Freshwater Aquarium, captive breeding is carried out as ex-situ conservation activities assuming reintroduction while considering genetic diversity and genetic adaptation to captivity.

As for other species not aiming for wild reversion, we explored more efficient breeding methods for exhibition enlightenment, and as a result, 15 of 36 species (41.6% of total), (11 Cyprinidae, 1 Salmonidae, 1 Gasteroseidae, 2 Gobiidae), have been constantly exhibited by establishing reproducible breeding techniques.